

REMARKS/ARGUMENTS

This is in full and timely response to the final Office Action mailed July 14, 2003. Reexamination and reconsideration in light of the following remarks is respectfully requested.

Rejections under 35 U.S.C. §102

Claims 1, 3, 6, 8, 10, 13, 15 and 20 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,739,629 to Yun. Applicants respectfully traverse this rejection.

Claim 1 recites an electron gun comprised of a cathode that has an electron emission surface and a first grid that has a beam hole, wherein said electron emission surface and said beam hole being arranged opposite to each other, and the area opposite said beam hole within said electron emission surface being in closest proximity to said first grid; wherein the area opposite said beam hole is a center area of said electron emission surface and is a convex surface to said first grid, and wherein an electron beam emitted from the emission surface has a converging trajectory.

Claim 8 recites a cathode ray tube equipped with an electron gun, wherein said electron gun having a cathode that has an electron emission surface and a first grid that has a beam hole and said electron emission surface and said beam hole being arranged opposite to each other and the area opposite said beam hole within said electron emission surface being in closest proximity to said first grid; wherein the area opposite said beam hole is a center area of said electron emission surface and is a convex surface to said first grid, and wherein an electron beam emitted from the emission surface has a converging trajectory.

Claim 15 recites an image display device equipped with a cathode ray tube, wherein said cathode ray tube being equipped with an electron gun, said electron gun being comprised of a cathode that has an electron emission surface and a first grid that has a beam hole and said electron emission surface and said beam hole being arranged opposite to each other and the area opposite said beam hole within said electron emission surface being in closest proximity to said first grid; wherein the area opposite said beam hole is a center area of said electron emission surface and is a convex surface to said first grid, and wherein an electron beam emitted from the emission surface has a converging trajectory.

Yun et al. '629 discloses a double cross-over electron gun for a color CRT. The electron gun comprises a triode having a cathode 11, a control electrode 12, a screen electrode 13, focus electrodes 14-18, and a final accelerating electrode 19. See Fig. 1.

Yun et al. '629 Fig. 2 depicts the electronic lenses formed in the electron gun of Fig. 1. "Here, the electron beam path differs from that of the conventional electron gun for a color CRT in that a second cross-over point P2 is formed in front of the second auxiliary lens 230, together with a first cross-over point P1 formed in front of the pre-focusing lens 210. Though the second cross-over point P2 is shown as being formed in front of the second auxiliary lens 230, its formation generally prior to the main lens 240 is within the scope of the present invention." Col. 3, lines 21-29. Thus, there are two cross-over points P1 and P2 before the main lens 240.

In contrast, Fig. 4 of the present invention depicts a single cross-over point 31 before the principle lens 32. The present invention has an electron beam gun 10 having three inline arranged cathodes. See page 8, lines 21-22. As depicted in Fig. 4, the electron beam EB, which is emitted from the working area 21W of the surface 21 of the cathode K, converges at a crossover point 31 between the first grid 11 and the second grid 12, therefore the electron beam EB emitted from the emission surface has a converging trajectory.

Accordingly, Yun et al. '629 does not disclose, teach or suggest that the area opposite to the beam hole is a center area of the electron emission surface 21 that is a convex surface to the first grid. See, for example, the specification at page 10, lines 6-21 and Fig. 3. That is, Yun et al. '629 does not disclose, teach or suggest the proximity of the area opposite said beam hole within the electron emission surface being in closest proximity to the first grid, that is, the distance Dgk.

A document can only anticipate a claim if the document discloses, explicitly or implicitly, each and every feature recited in the claim. Verdegall Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Since Yun et al. '629 fail to disclose, either explicitly or implicitly, at least the above-noted features recited in independent claims 1, 8 and 15, Yun et al. '629 cannot anticipate the claims. At least in view of the foregoing, claims 1, 8 and 15 are allowable, and the rejection should be reconsidered and withdrawn.

Dependent claims 3 and 5 depending from claim 1, 10 and 12 depending from claim 8, and 17 and 19 depending from claim 15, are also allowable for the reasons above. Moreover,

these claims are further distinguished by the materials recited therein, particularly within the claimed combination. Withdrawal of the §102(b) rejection is therefore respectfully solicited.

Claims 5, 12 and 19 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,739,629 to Yun et al. in view of U.S. Patent No. 2,735,032 to Bradley. Applicants respectfully traverse this rejection.

Dependent claim 5 depending from claim 1, 12 depending from claim 8, and 19 depending from claim 15, are allowable as depending from allowable base claims. Moreover, these claims are further distinguished by the materials recited therein, particularly within the claimed combination. Withdrawal of the §103(a) rejection is therefore respectfully solicited.

Conclusion

For the foregoing reasons, claims 1, 3, 5, 6, 8, 10, 12, 13, 15, 17, 19 and 20 are in condition for allowance. Accordingly, favorable reexamination and reconsideration of the application in light of these amendments and remarks is courteously solicited. If the examiner has any comments or suggestions that would place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number below.

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Respectfully submitted,

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